

Remarks/Arguments

Applicants have received and carefully reviewed the Office Action of the Examiner mailed March 4, 2009. Currently, claims 1, 5-8, and 11-19 remain pending. Claims 1, 5-8, and 11-19 have been rejected. Favorable consideration of the following remarks is respectfully requested.

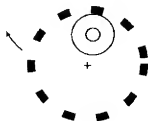
Claim Rejections – 35 USC § 103

Claims 1, 5, 7-8, 11-17, and 19 were rejected under 35 U.S.C. 103(a) as being unpatentable over Acciai et al. (U.S. Patent No. 5,855,802), hereinafter Acciai, in view of Pacetti et al. (U.S. Patent No. 6,695,920), hereinafter Pacetti, McCoy (U.S. Published Patent Application No. 2003/0234243), and Applicant's Admitted Prior Art, hereinafter AAPA. After careful review, Applicant must respectfully traverse this rejection.

"All words in a claim must be considered in judging the patentability of that claim against the prior art." *In re Wilson*, 424 F.2d 1382, 1385, 165 USPQ 494, 496 (CCPA 1970). (MPEP § 2143.03). Nowhere does Acciai appear to disclose a device for manufacturing an intravascular stent comprising "a laser cutting system attached to the first surface of the base, wherein the laser cutting system includes a laser/water jet hybrid". Instead, Acciai appears to disclose a system for exposing a light-sensitive coating which is subsequently developed prior to an etching step which removes unwanted material in a pattern-wise manner. Further, the device of Acciai relies upon a bifurcated optical guide, one arm of which is positioned within the tubular member to be patterned. Replacing the system for exposing a light-sensitive coating with a laser cutting system would impermissibly alter the operating principle of the device of Acciai. (MPEP 2143.01, VI.) Further, there would appear to be no motivation to modify the device of Acciai by in the manner suggested by the Examiner for the reason that the system of Acciai does not appear to generate debris or require cooling as no material is removed from the workpiece during the exposure of the light-sensitive coating. There does not appear to be any falling debris which might be removed by a water system of McCoy or AAPA and thus no motivation to provide such a system. Further, the laser system of McCoy does not appear to be a laser/water jet hybrid, but rather a coaxial oxygen gas jet

assisted laser. One of ordinary skill in the art would appreciate that introducing the cleaning water jet of McCoy into the optical system of Acciai during laser operation would tend to interfere with focusing the laser on the photoresist, particularly if the stent were to be supported by the loosely supporting guide system components of the coating apparatus of Pacetti discussed below.

With respect to the proposed combination of Acciai and Pacetti, the coating apparatus of Pacetti does not appear to be capable of positioning the previously patterned stent to be coated with the precision necessary to pattern a stent. Since the larger diameter portion of the mandrel is said to be smaller than the interior of the previously patterned stent, it would appear to allow significant and undesirable rocking motion in a direction generally transverse to the long dimension of the patterned stent. (See Figs. 4 and 5 and the sketch below.) Similarly, as shown in Fig. 5, the longitudinal stops (36) allow significant longitudinal play which would be unacceptable in a positioning device for cutting rather than patterning a stent. Accordingly, one of ordinary skill in the art would not turn to the imprecise positioning components of Pacetti's coating apparatus to provide the precise positioning required of a stent fabrication device. Further, the mandrel of Pacetti appears to occupy a significant portion of the upper interior of the stent which would appear to make the combination unsuited to the operation of the second arm of the bifurcated optical system of Acciai which must also occupy that portion of the stent lumen. For at least these reasons, one of ordinary skill in the art would not be motivated to employ the motors and "guides support components" with the photoresist exposure system of Acciai and were one to do so one would not have the laser cutting system of the pending claims.



For at least the reasons discussed above, modification of Acciai by replacing the bifurcated optical exposure system with a cutting system would impermissibly alter the operating principle of Acciai. One of ordinary skill in the art would not be motivated to supply the water system of McCoy or of AAPA for the simple reason that they would not serve a useful purpose in the apparatus of Acciai and potentially would introduce undesirable debris rather than removing it in such a system. Further, replacing the positive positioning stent tube holding system of Acciai with the loosely supporting guide system components of the coating apparatus of Pacetti would interfere with the operation of the bifurcated optical exposure system of Acciai without maintaining the necessary positioning accuracy.

Furthermore, nowhere does Pacetti appear to disclose, “a rotary motor coupled to the linear motor, wherein the rotary motor is positioned below the linear motor”, as found in independent claim 1 or a “first motor is attached upside-down to the base member” and “a rotary motor attached to the first motor, wherein the rotary motor is positioned below the first motor” as found in independent claim 13. Additionally, the components of Acciai, Pacetti, and McCoy do not appear to be mounted to a common base with a laser cutting system attached to the first surface of the base and a linear motor attached to a second surface of the base. Indeed, the various components of Acciai, Pacetti, and McCoy appear to float without an identified common base, much less one bearing the required relationship to the several components. The Examiner has asserted in the rejections and in the Response to Arguments that the relative positioning of components has been found to be obvious; however:

“The mere fact that a worker in the art could rearrange the parts of the reference device to meet the terms of the claims on appeal is not by itself sufficient to support a finding of obviousness. The prior art must provide a motivation or reason for the worker in the art, without the benefit of appellant’s specification, to make the necessary changes in the reference device.” Ex parte Chicago Rawhide Mfg. Co., 223 USPQ 351, 353 (Bd. Pat. App. & Inter. 1984).” (MPEP 2144.04, VI, C., emphasis added.)

Therefore, Acciai in view of Pacetti, McCoy, and AAPA does not appear to teach all the claim limitations, as is required to establish a *prima facie* case of obviousness and

Applicants respectfully request that the rejections of nonobvious independent claims 1 and 13 be withdrawn.

If an independent claim is nonobvious under 35 U.S.C. 103, then any claim depending therefrom is nonobvious. *In re Fine*, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988). (MPEP 2143.03)

Accordingly, claims 5, 7-8, 11-12, 14-17, and 19, which depend from nonobvious independent claims 1 and 13 respectively, are believed to be nonobvious and Applicants respectfully request that the rejections be withdrawn.

Claims 1, 5, 7-8, 11-17, and 19 were rejected under 35 U.S.C. 103(a) as being unpatentable over Acciai in view of Pacetti, McCoy, and Kranz (U.S. Patent No. 6,197,047). After careful review, Applicant must respectfully traverse this rejection.

As discussed above, the modification of Acciai by the substitution of the loosely supporting guide system components of the coating apparatus of Pacetti for the precision positioning components of Acciai and replacing the laser cutting system of Acciai with the cutting laser and water system of McCoy and/or AAPA would impermissibly alter the operating principle of the device of Acciai. (MPEP 2143.01, VI.) Further, for reasons also discussed above, one of ordinary skill in the art would not be motivated to make those substitutions and/or rearrangements. Kranz is said by the Examiner to teach "a water laser", a term not found in pending claims or defined by Kranz. It is unclear what is meant by a "cutting jet of water preferably a laser beam" which appears to be a typographical error which should read: "... severed by means of a cutting beam, e.g. a cutting jet of water or preferably a laser beam". It seems apparent that this intent has been correctly stated at col. 6, lines 1-5:

"It is possible to use a water jet cutting process to produce the partition lines. However a laser beam is preferably used as the cutting beam, firstly because very high cutting precision can be obtained, and secondly because the mechanical strains on the stent are minimized."

This later passage, the second of only two which includes the term "water", appears to indicate that a water jet cutting process is disfavored because of poor precision and because undesirable mechanical strains are introduced thereby. Thus Kranz fails to

overcome the deficiencies of Acciai in view of Pacetti and McCoy and further fails to teach a laser/water jet hybrid cutting system found in independent claims 1 and 13.

For at least these reasons, Acciai in view of Pacetti, McCoy, and Kranz does not appear to teach all the claim limitations, as is required to establish a *prima facie* case of obviousness and Applicants respectfully request that the rejections of nonobvious independent claims 1 and 13 be withdrawn.

Accordingly, claims 5, 7-8, 11-12, 14-17, and 19, which depend from nonobvious independent claims 1 and 13 respectively, are believed to be nonobvious and Applicants respectfully request that the rejections be withdrawn.

Claims 6 and 18 were rejected under 35 U.S.C. 103(a) as being unpatentable over Acciai in view of Pacetti, McCoy, and (AAPA or Kranz) as discussed above and in further view of Magnante (U.S. Patent No. 6,086,204). After careful review, Applicant must respectfully traverse this rejection.

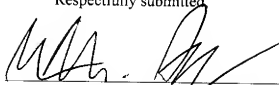
As discussed above, independent claims 1 and 13 are nonobvious over Acciai in view of Pacetti, McCoy, and (AAPA or Kranz). Magnante, said to teach the use of a granite base, does not appear to overcome the previously discussed deficiencies of the cited references. Accordingly, claims 6 and 18, which depend from nonobvious independent claims 1 and 13 respectively, are believed to be nonobvious and Applicants respectfully request that the rejections be withdrawn.

In view of the foregoing, all pending claims are believed to be in a condition for allowance. Reexamination and reconsideration are respectfully requested. Issuance of a Notice of Allowance in due course is anticipated. If a telephone conference might be of assistance, please contact the undersigned attorney at (612) 677-9050.

Respectfully submitted

Date:

May 7, 2009



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